Charles R. Pierce Regulatory Affairs Director Southern Nuclear Operating Company, Inc. 40 Inverness Center Parkway Post Office Box 1295 Birmingham, AL 35242

Tel 205.992.7872 Fax 205.992.7601



July 5, 2016

Docket Nos.: 50-364 NL-16-0857

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D. C. 20555-0001

> Joseph M. Farley Nuclear Plant – Unit 2 Licensee Event Report 2016-001-00 Manual Reactor Trip due to High Steam Generator Level

### Ladies and Gentlemen:

This Licensee Event Report is being submitted pursuant to the requirements of the Code of Federal Regulations, 10 CFR 50.73(a)(2)(iv)(A) for a manual actuation of the Reactor Protection System and an automatic start of the Auxiliary Feedwater system.

This letter contains no NRC commitments. If you have any questions regarding the submittal, please contact Mr. John McLean at (334) 814-3342.

Respectfully submitted,

C. R. Pierce

Regulatory Affairs Director

CRP/JWM/cg

Enclosure: Unit 2 Licensee Event Report 2016-001-00

## cc: Southern Nuclear Operating Company

Mr. S. E. Kuczynski, Chairman, President & CEO

Mr. D. G. Bost, Executive Vice President & Chief Nuclear Officer

Mr. M. D. Meier, Vice President – Regulatory Affairs

Mr. D. R. Madison, Vice President - Fleet Operations

Mr. B. J. Adams, Vice President - Engineering

Ms. C. A. Gayheart, Vice President – Farley

Ms. B. L. Taylor, Regulatory Affairs Manager – Farley

Mr. J. E. Purcell, Site Operating Experience Coordinator

RTYPE: CFA04.054

## U. S. Nuclear Regulatory Commission

Ms. C. Haney, Regional Administrator

Mr. S. A. Williams, NRR Project Manager - Farley

Mr. P. K. Niebaum, Senior Resident Inspector - Farley

## **Enclosure**

Joseph M. Farley Nuclear Plant – Unit 2
Unit 2 Licensee Event Report 2016-001-00

Manual Reactor Trip due to High Steam Generator Level

#### NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2018 (11-2015) Estimated burden per response to comply with this mandatory collection request: 80 hours Reported lessons learned are incorporated into the licensing process and fed back to industry Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by LICENSEE EVENT REPORT (LER) nternet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not equired to respond to, the information collection 1. FACILITY NAME 2. DOCKET NUMBER 3. PAGE Joseph M. Farley Nuclear Plant, Unit 2 05000 -364 1 OF 2 4. TITLE Manual Reactor Trip due to High Steam Generator Level 5. EVENT DATE 6. LER NUMBER 7. REPORT DATE 8. OTHER FACILITIES INVOLVED FACILITY NAME DOCKET NUMBER SEQUENTIAL MONTH DAY YEAR YEAR REV NO. MONTH DAY YEAR NUMBER 05000-FACILITY NAME DOCKET NUMBER 07 05 2016 05 11 2016 2016 - 001 -05000-9. OPERATING MODE 11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) 20.2203(a)(3)(i) 20.2201(b) 50.73(a)(2)(ii)(A) 50.73(a)(2)(viii)(A) 20.2201(d) 20.2203(a)(3)(ii) 50.73(a)(2)(viii)(B) 1 50.73(a)(2)(ii)(B) 20.2203(a)(1) 20.2203(a)(4) 50.73(a)(2)(iii) 20.2203(a)(2)(i) 50.36(c)(1)(i)(A) 50.73(a)(2)(iv)(A) $\square$ 50.73(a)(2)(x) 10. POWER LEVEL 20.2203(a)(2)(ii) 50.36(c)(1)(ii)(A) 50.73(a)(2)(v)(A) 73.71(a)(4) 50.73(a)(2)(v)(B) 20.2203(a)(2)(iii) 50.36(c)(2) 73.71(a)(5) 20.2203(a)(2)(iv) 50.46(a)(3)(ii) 50.73(a)(2)(v)(C) 73.77(a)(1) 29% 20.2203(a)(2)(v) 50.73(a)(2)(i)(A) 50.73(a)(2)(v)(D) 73.77(a)(2)(i) 20.2203(a)(2)(vi) 50.73(a)(2)(i)(B) 50.73(a)(2)(vii) 73.77(a)(2)(ii) ☐ 50.73(a)(2)(i)(C) OTHER Specify in Abstract below or in NRC Form 366A 12. LICENSEE CONTACT FOR THIS LER ICENSEE CONTACT TELEPHONE NUMBER (Include Area Code) John W. McLean IV 334-814-3342 13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT MANU-FACTURER REPORTABLE TO EPIX MANU-FACTURER REPORTABLE TO EPIX CAUSE SYSTEM COMPONENT CAUSE SYSTEM COMPONENT N/A N/A N/A N/A 14. SUPPLEMENTAL REPORT EXPECTED 15. EXPECTED MONTH DAY YEAR SUBMISSION YES (If ves. complete 15. EXPECTED SUBMISSION DATE) NO DATE ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) On 5/11/2016 at 0653 CDT, with Unit 2 (U2) at 29 percent power, the Hi-Hi Steam Generator (SG) setpoint was reached. This caused the main feedwater valves to isolate, the running main feedwater pumps to trip, automatic start of the Motor Driven Auxiliary Feed Pumps, and the main turbine to trip automatically. The reactor was manually tripped per procedure. This event is reportable as required by 10 CFR 50.73(a)(2)(iv)(A) due to a manual actuation of the Reactor Protection System and the automatic actuation of the Auxiliary Feedwater system. The cause of the manual reactor trip was determined to be inadequate control of the feedwater system. leading to an overfilling of the Steam Generators. Corrective actions included additional training provided to the startup control room team on manipulations that affect the feedwater system. Also, more specific guidance on feedwater system operation and control during Startup from Hot Standby to Power Operations will also be incorporated into operating procedures.

11-2015)

# LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME	2. DOCKE	3. LER NUMBER			
Joseph M. Farley Nuclear Plant, Unit 2	05000-	364	YEAR	SEQUENTIAL NUMBER	REV NO.
			2016	- 001 -	00

#### NARRATIVE

#### A. PLANT AND SYSTEM IDENTIFICATION

Westinghouse - Pressurized Water Reactor Energy Industry Identification Codes are identified in the text as [XX].

#### **B. DESCRIPTION OF EVENT**

On 5/11/2016 at 0653 CDT, with Unit 2 (U2) at 29 percent power, the Hi-Hi Steam Generator (SG) setpoint was reached. This caused the main feedwater valves to isolate, the running main feedwater pumps to trip, automatic start of the Motor Driven Auxiliary Feed Pumps, and the main turbine to trip automatically. The reactor was manually tripped per procedure.

#### C. UNIT STATUS AT TIME OF EVENT

Unit 2, Mode 1, 29 percent power

#### D. CAUSE OF EVENT

The cause of the manual reactor trip was determined to be inadequate control of the feedwater system, leading to an overfilling of the Steam Generators.

#### E. REPORTABILITY ANALYSIS AND SAFETY ASSESSMENT

This event is reportable as required by 10 CFR 50.73(a)(2)(iv)(A) due to a manual actuation of the reactor protection system and automatic actuation of the auxiliary feedwater system. The reactor was shut down at 0653 and mode 3 was entered to complete the necessary procedural actions. The Motor Driven Auxiliary Feed Pumps also started automatically which is reportable by 10 CFR 50.73(a)(2)(iv)(A). There was no loss of safety function and no radioactive release associated with this event. All required safety systems were available and the plant responded as expected. There were no actual consequences detrimental to the health and safety of the public and is considered to be of very low safety significance.

#### F. CORRECTIVE ACTION

Corrective actions included additional training provided to the startup control room team on manipulations that affect the feedwater system. Also, more specific guidance on feedwater system operation and control during Startup from Hot Standby to Power Operations will also be incorporated into operating procedures.

#### G. ADDITIONAL INFORMATION

Other system affected:

No systems other than those mentioned in this report were affected by this event.

#### NRC FORM 366A

#### U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104

EXPIRES: 10/31/2018

(11-2015)

LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, Dc 20555-001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NGD-10202, (3150-0104), Office of Management and Budget, Washington, Dc 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME	2. DOCKET	3. LER NUMBER			
Joseph M. Farley Nuclear Plant, Unit 2	05000	364	YEAR	SEQUENTIAL NUMBER	REV NO.
	05000-		2016	- 001 -	00

#### **NARRATIVE**

Commitment Information:

This report does not create any licensing commitments

**Previous Similar Events:** 

LER 2010-002-00: Reactor Trip due to Failed Feedwater Regulating Valve Controller